OMPL2001 Result

IBM Corporation

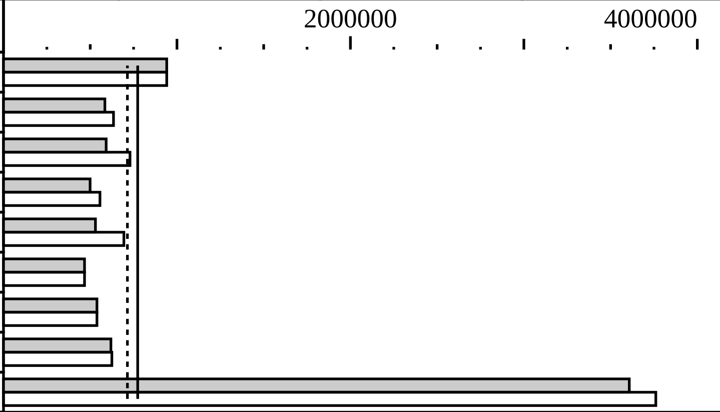
IBM Power 750 Express (3.55 GHz, 32 core, RedHat)

SPECompLpeak2001 = 773674

SPECompLbase2001 = 714360

SPEC license #: HPG0005	Tested by: IBM	Test site: Austin, TX	Test date: Oct-2010	Hardware Avail: Feb-2010	Software Avail: Nov-2010

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
311.wupwise_l	9200	156	941084	156	941084
313.swim_l	12500	342	584451	315	634217
315.mgrid_l	13500	365	591881	296	729320
317.applu_l	13500	433	499281	388	556083
321.equake_l	13000	392	530148	300	693952
325.apsi_l	10500	360	467152	360	467152
327.gafort_l	11000	327	538740	327	538740
329.fma3d_l	23500	607	619194	602	624675
331.art_l	25000	111	3607724	106	3760743



Hardware

CPU:	POWER7
CPU MHz:	3556
FPU:	Integrated
CPU(s) enabled:	32 cores, 4 chips, 8 cores/chip. 4 threads/core
CPU(s) orderable:	8,16,24,32 cores
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core
L3 Cache:	4 MB I+D on chip per core
Other Cache:	None
Memory:	256 GB (32x8 GB) DDR3 1066 MHz
Disk Subsystem:	2 x 146.8 GB SAS SFF 15K RPM
Other Hardware:	None

Software

OpenMP Threads:	128
Parallel:	OpenMP
Operating System:	Red Hat Enterprise Linux Server release 6.0 (ppc64) Kernel 2.6.32-71.el6.ppc64
Compiler:	IBM XL C/C++ for Linux, V11.1 Updated with the Nov2010 PTF IBM XL Fortran for Linux, V13.1 Updated with the Nov2010 PTF
File System:	ext3
System State:	Run level 3 (multi-user)

Notes/Tuning Information

```
Portability Flags & Environment Variables
  -qfixed used in: 311.wupwise_l, 313.swim_l, 315.mgrid_l, 317.applu_l, 325.apsi_l
  -qsuffix=f=f90 used in:  327.gafort_l, 329.fma3d_l

Base Flags
  C:       -q64 -O5 -qhot=arraypad -qsmp=omp
  FORTRAN: -q64 -O5 -qhot=arraypad -qsmp=omp

Base & Peak User Environment:
    OMP_NUM_THREADS = 128
    OMP_DYNAMIC=FALSE
    XLSMPOPTS=SPINS=0:YIELDS=0:STACK=8000000:STARTPROC=0:STRIDE=1
    XLFRTEOPTS=intrinthds=1

 Peak Flags
   -q64 used in all cases
   -qsmp=omp used in all cases

   311.wupwise_l:  basepeak = 1
   313.swim_l:     -O3 -qhot=arraypad
        XLSMPOPTS=SPINS=0:YIELDS=0:STACK=8000000:STARTPROC=0:PROCS=0,1,4,5,8,9,12,13,16,17,20,21,24,25,28,29,
                   32,33,36,37,40,41,44,45,48,49,52,53,56,57,60,61,
                   64,65,68,69,72,73,76,77,80,81,84,85,88,89,92,93,
                   96,97,100,101,104,105,108,109,112,113,116,117,120,121,124,125
                   OMP_NUM_THREADS = 64
```

Notes/Tuning Information (Continued)

```
    315.mgrid_l:    -O5 -qpdf1/pdf2
                    XLSMPOPTS=SPINS=0:YIELDS=0:STACK=8000000:STARTPROC=0:STRIDE=4
                    OMP_NUM_THREADS = 32
    317.applu_l:    -O3
              XLSMPOPTS=SPINS=0:YIELDS=0:STACK=8000000:STARTPROC=0:PROCS=0,1,4,5,8,9,12,13,16,17,20,21,24,25,28,29,
                    32,33,36,37,40,41,44,45,48,49,52,53,56,57,60,61,
                    64,65,68,69,72,73,76,77,80,81,84,85,88,89,92,93,
                    96,97,100,101,104,105,108,109,112,113,116,117,120,121,124,125
    321.equake_l:   -O5 -qhot=arraypad -qpdf1/pdf2
                    XLSMPOPTS=SPINS=0:YIELDS=0:STACK=8000000:STARTPROC=0:STRIDE=4
                    OMP_NUM_THREADS = 32
    325.apsi_l:     basepeak = 1
    327.gafort_l:   basepeak = 1
    329.fma3d_l:    -O4 -qhot=arraypad
    331.art_l:      -O5 -Q -qpdf1/pdf2

 C:               IBM XL C for Linux invoked as xlc_r
 Fortran 90:      IBM XL Fortran for Linux invoked as xlf90_r

 Use flags-description file IBM-20100816-Linux.txt

 ulimit -s (stack) set to 1048576.

 Intelligent Energy Optimization enabled, up to 3.86 GHz
```